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holding two or three litres is employed and into this a considerable quantity of *Cabomba Caroliniana* or *Myriophyllum spicatum* is introduced (fig. 2). The water is thoroughly charged with carbon dioxide and the plants are then exposed to the sunlight. Little streams of gas are seen to pass upward from various points, and when sufficient gas has collected at the top of the flask, the latter is immersed in a tank of water in a horizontal position in such a manner that the gas is directly under the opening (fig. 3). On turning the stop-cock and applying a splinter of wood with a spark on the end of it the gas will be found to be oxygen.

When the supply of carbon dioxide in the water has been exhausted the plant will no longer give off bubbles of oxygen. The process may be again initiated by passing carbon dioxide into the receiver. Before testing it is best to allow the carbon dioxide to become exhausted, since in recharging the water it is impossible to avoid collecting some of this gas over the liquid and adulterating the oxygen. On standing it is gradually absorbed by the water and consumed by the plant. In any case the gas collected is not pure oxygen, but it is sufficiently rich in this substance to make an effective demonstration.

The deaths of D. Shepherd Holman, a member, May 13, and of Thomas C. Porter, a correspondent, April 27, were announced.

MAY 21.

Mr. CHARLES MORRIS in the Chair.

Seventeen persons present.

Papers under the following titles were presented for publication:

“Fishes from the Caroline Islands,” by Henry W. Fowler.

“Types of Fishes,” by Henry W. Fowler.

Structure of Diatoms.—MR. FRANK J. KEELEY remarked that in studying the structure of diatom valves some years ago the method employed: mounting broken valves at right angles to the cover glass, proved efficient for most of the coarsely marked forms, but failed with certain species of *Aulacodiscus*.

Such forms as *A. Sollittianus*, *A. margarataceous*, etc., yielded satisfactory sectional views and proved not to differ materially in structure from *Coscinodiscus*; but another group, including *A. Oreganus*, *A. Rogersii*, *A. Janischii*, etc., proved too opaque for the elucidation of their structure by this method. Further exam-